

CLAIMS:

1. A method of transmitting a bit stream (202, 204) across a network (120) from a sending device (114) to a receiving device (130), the method comprising:
 - a coding act for producing at least one protection bit stream (206, 208, 210) from said bit stream using a channel coding technique; and
 - 5 a generating act for generating at least one hint track (216f – 216l) from said protection bit stream (206, 208, 210), wherein said at least one hint track (216f – 216l) is associated with said at least one protection bit stream (206, 208, 210) in a many-to-one relationship.
- 10 2. The method of Claim 1 further comprising a storing act for storing said at least one protection bit stream (206, 208, 210) and said at least one hint track (216f – 216l) on a storage medium.
3. The method of Claim 1 further comprising the acts of:
 - 15 receiving from said receiving device (130) an error correction request for error protection; and
 - outputting a first protection bit stream (206) from among said at least one protection bit stream (206, 208, 210) in accordance with associated hint tracks (216f, 216g) from among said at least one hint track (216f – 216l);
 - 20 wherein said first protection bit stream (206) is produced at said coding act and said associated hint tracks (216f, 216g) are generated at said generating act.
4. The method of Claim 3, further comprising the acts of:
 - 25 subsequently receiving from said receiving device (130) a modified error correction request for error protection in response to a change of network condition; and
 - outputting at least one modified protection bit stream (208, 210) from among said at least one protection bit stream (206, 208, 210) produced at said coding act in accordance with associated hint tracks (216h – 216l);
 - 30 wherein said at least one modified protection bit stream (208, 210) is produced at said coding act and said associated hint tracks (216h – 216l) are generated at said generating act.

5. The method of claim 1, wherein said bit stream (202, 204) is a data stream output in accordance with a source coding method.
- 5 6. The method of claim 1, wherein said at least one protection bit stream (206, 208, 210) is a data stream produced in accordance with a data protection coding method.
7. The method of claim 1, wherein said at least one hint track (216a – 216l) is a data stream generated in accordance with a hinting algorithm.
- 10 8. The method of claim 7, wherein said hinting algorithm optimized in accordance with at least a network condition, network protocol and network type.
9. The method of Claim 1, wherein the receiving device (130) is a client device and
15 the sending device (114) is a server device.
10. A computer-readable medium bearing instructions for performing error protection, said instructions being arranged, upon execution by one or more processors, to perform the acts of the method of claim 1.
- 20 11. An error protection system, comprising:
means for producing at least one protection bit stream (206, 208, 210) from said bit stream (202, 204) using a channel coding technique; and
means for generating at least one hint track (216f – 216l) from said at least one
25 protection bit stream (206, 208, 210), wherein said at least one hint track (216f – 216l) is associated with said at least one protection bit stream (206, 208, 210) in a many-to-one relationship.
12. The error protection system of claim 11, further comprising means for storing said
30 at least one protection bit stream (206, 208, 210) and said at least one hint track (216f – 216l) on a storage medium.

13. The error protection system of claim 12, further comprising:
means for receiving from said receiving device (130) an error correction request for error protection; and
means for outputting a first protection bit stream (206) from among said at least one protection bit stream (206, 208, 210) in accordance with associated hint tracks (216f, 216g) from among said at least one hint track (216f – 216l);
wherein said first protection bit stream (206) is produced at said coding act and said associated hint tracks (216f, 216g) are generated at said generating act.
14. The error correction system of claim 13, further comprising:
means for subsequently receiving from said receiving device (130) a modified error correction request for error protection in response to a change of network condition; and
means for outputting at least one modified protection bit stream (208, 210) from among said at least one protection bit stream (206, 208, 210) produced at said coding act in accordance with associated hint tracks (216h -216l);
wherein said modified protection bit stream (208, 210) is produced at said coding act and said associated hint tracks (216h, 216l) are generated at said generating act.
15. The method of claim 1, wherein said bit stream (202, 204) is a data stream output in accordance with a source coding method.
16. The error correction system of claim 13, wherein said at least one protection bit stream (206, 208, 210) is a data stream produced in accordance with a data protection coding method.
17. The error correction system of claim 13, wherein said at least one hint track (216a -216l) is a data stream generated in accordance with a hinting algorithm.
18. The error correction system of claim 13, wherein said hinting algorithm optimized in accordance with at least a network condition, network protocol and network type.

19. The error correction system of claim 13, wherein the receiving device (130) is a client device and the sending device (114) is a server device.